

**REMARKS**

Claims 1-9 are pending in the present application. Claims 6-9 have been withdrawn from consideration. Claims 1-5 are the subject of the present examination. Applicants are amending herewith independent Claims 1-5 and are adding herewith new dependent Claims 10-22.

**The Office Action:**

Claims 1-5 were rejected under 35 U.S.C. § 112, first paragraph and second paragraph. Claims 1-3 and 5 were rejected under 35 U.S.C. § 102(b) as being completely anticipated and unpatentable over the patents to Larson '007 or Larson '841. Claim 4 was not substantively rejected, and, therefore, would be allowable if the Section 112 rejections are overcome. Applicants respectfully traverse the foregoing rejections.

**The Information Disclosure Statement:**

The rejection states that applicants have not responded to the previous request to identify those references most closely related to the instantly claimed invention to which the examiner should direct his primary attention. Applicants submit that they are not required by the rule to provide such information. Applicants have reviewed the references submitted with the Information Disclosure Statements in order to determine if they might be material to the examination of the claims of the present application. Applicants submit that they have fulfilled their duty under 37 CFR § 1.56. Nevertheless, the patents to Brodnyan et al. (U.S. Patent No. 4,356,229) and Bjorkquist (U.S. Patent No. 6,127,593) were cited in related applications and appear to be material to the patentability of the present claims.

**The Rejection Under 35 U.S.C. § 112:**

Claims 1-5 were rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not contain an enabling disclosure for triggerable cationic or ion specific polymers that contain only cationic polymeric units. Applicants are amending the claims herewith to state that the cationic polymer comprises cationic monomeric units and either non-cationic monomeric units or water insoluble, hydrophobic monomeric units, hydrophilic monomeric units, water-soluble nonionic monomeric units or various combinations of the foregoing.

Claims 1-5 were rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not contain an enabling disclosure wherein the triggerable cationic or ion specific polymers are the discontinuous phase and the co-binder is the continuous phase. Applicants are amending the claims herewith to state that cationic polymer is the continuous phase and the co-binder is the discontinuous phase.

Claims 1-5 were rejected under 35 U.S.C. § 112, first paragraph, because the specification allegedly does not contain an enabling disclosure wherein the polymer formulation is soluble in water containing up to about 200 ppm of one or more multivalent ions. Applicants are amending the claims herewith to eliminate the term soluble from Claim 4 and to affirmatively provide that the polymer formulation is dispersible in water containing up to about 200 ppm of one or more multivalent ions or dispersible in hard or soft water in all of the claims.

Applicants respectfully submit that, as amended, Claims 1-5 comply with the requirements of 35 U.S.C. § 112. Accordingly, applicants request that the rejection of Claims 1-5 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Claims 1-5 were also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The rejection states that the terms “triggerable” and “ion-specific” are indefinite because the metes and bounds of the trigger or ion-specific effect cannot be determined from the claims. The rejection states that Claim 3 is indefinite because the polymer does not comprise monomers. The rejection further states that Claims 4 and 5 are indefinite because it is unclear what is meant by “divalent metal salts capable of forming a complex anion.” The rejection states that Claim 5 is further rejected because the metes and bounds of the term “hard or soft water” cannot be determined.

Applicants are amending Claims 1-3 and 5 herewith to state that the polymer formulation is insoluble in aqueous solution containing at least about 0.5 weight percent divalent metal salt capable of forming complex anions and the polymer formulation is dispersible in water containing up to about 200 ppm of one or more mono or multivalent ions so as to positively recite the extent of the trigger or ion-specific effect. Applicants are also amending Claims 1-5 to remove the terms “triggerable” and “ion-specific.” Applicants are amending herewith Claim 3 so as not to state that the polymer contains monomers, but rather, that the polymer contains monomeric units. Applicants are also amending herewith Claims 4 and 5 to state that the divalent metal salt is capable of forming complex anions in water in the presence of the cationic polymer. Applicants submit that the foregoing

amendments overcome the rejections of Claims 1-4 under 35 U.S.C. § 112, second paragraph, and the first portion of the rejection with respect to Claim 5.

With respect to the second portion of the rejection of Claim 5 under 35 U.S.C. § 112, second paragraph; *i.e.*, that the term “hard or soft water” cannot be determined, applicants respectfully submit that those terms are not indefinite when they are construed in accordance with the specification. For example, page 5, lines 21-27 states:

The ion-sensitive polymer formulations of the present invention have a “trigger property,” such that the polymers are insoluble in a wetting composition comprising an insolublizing agent of a particular type and concentration, such as monovalent salt solutions at concentrations above about 2%, but are soluble when diluted with water including hard water with up to 200 ppm (parts per million) calcium and magnesium ions.

Additionally, page 5, line 31 to page 6, line 9 states:

The ion specific cationic polymers and polymer formulations of the present invention have a “trigger property,” such that the polymers are insoluble in a wetting composition comprising an insolublizing agent of a particular type and concentration, such as a divalent metal salt capable of forming complex anion in solution at concentrations above about 0.5%, but are soluble when diluted with water including other ions, such as divalent salt solutions as found in hard water with up to 200 ppm (parts per million) calcium and magnesium ions. Consequently, flushable products containing the polymer formulations of the present invention maintain dispersibility in hard water or soft water.

Furthermore, at page 8, lines 19-24 states:

The ion-sensitive polymer formulations of the present invention have a “trigger property,” such that the polymers are insoluble in a wetting composition comprising an insolublizing agent of a particular type and concentration, such as monovalent salt solutions at concentrations above about 2%, but are soluble when diluted with water including hard water with up to 200 ppm (parts per million) calcium and magnesium ions.

Again, at page 73, line 31 to page 74, line 3, the present application states:

Disposal strength or dispersibility was assessed by transferring samples soaked for a minimum of 12 hours in the salt solutions into deionized water or a hard water simulant (200 ppm  $\text{Ca}^{2+}/\text{Mg}^{2+}$ ).

Applicants respectfully submit that when the term “hard or soft water” is construed in accordance with the specification, as required by the Patent Laws, that the meaning of this term is clear to a person skilled in the art and the metes and bounds of that term can be determined. Accordingly, applicants respectfully submit that Claim 5, as written, complies with the requirements of 35 U.S.C. § 112, second paragraph. Accordingly, applicants request that the rejection of Claims 1-5 as being indefinite under 35 U.S.C. § 112, second paragraph, should be withdrawn.

**The Rejection Under 35 U.S.C. § 102:**

Claims 1-3 and 5 were rejected under 35 U.S.C. § 102(b) as being completely anticipated and unpatentable over the patents to Larson ‘007 or Larson ‘841. The rejection states that Larson ‘007 or Larson ‘841 disclose compositions comprising thermoplastic resin particles and a charge director. Applicants are amending herewith Claims 1-3 and 5 to state that the cationic polymer comprises cationic monomer units and either non-cationic monomeric units or water insoluble, hydrophobic monomeric units, hydrophilic monomeric units, water-soluble nonionic monomeric units or various combinations of the foregoing. Claims 1-3 and 5 now follow a format similar to Claim 4, which was not rejection in view of Larson ‘007 or Larson ‘841. Since Claims 1-3 and 5 do not claim thermoplastic resin

particles and a charge director, applicants respectfully submit that Claims 1-3 and 5 are not anticipated by Larson '007 or Larson '841. Accordingly, applicants request that the rejection of Claims 1-3 and 5 under 35 U.S.C. § 102(b) be withdrawn.

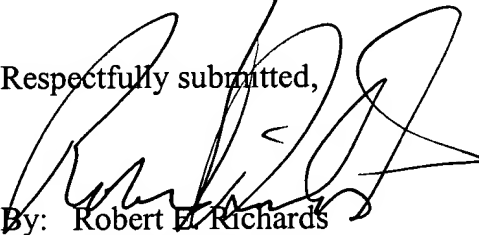
**New Claims:**

Applicants are adding herewith new Claims 10-22. Claims 10-17 are all dependent claims, each of which depends from one of independent Claims 1-5. Accordingly, Claims 10-17 are allowable for the same reasons as stated above. In addition, Claims 10-17 are allowable because they more precisely define the monomeric units that make up of the cationic polymer of the independent claims. These elements are not disclosed or suggested by the references of record. Accordingly, applicants submit that Claims 10-17 are in condition for allowance. New Claims 18-22 are all independent claims. Claims 18-22 are allowable for the same reasons as stated above with respect to Claims 1-5.

**Conclusion**

Applicants respectfully request reconsideration of the present application in view of the foregoing remarks. Such action is courteously solicited. Applicants further request that the Examiner call the undersigned counsel if allowance of the claims can be facilitated by examiner's amendment, telephone interview or otherwise.

Respectfully submitted,



By: Robert E. Richards  
Reg. No. 29,105

KILPATRICK STOCKTON LLP  
Suite 2800  
1100 Peachtree Street  
Atlanta, Georgia 30309  
Tel: (404) 815-6500  
Fax: (404) 815-6555  
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